



302 North 1st Avenue, Suite 300 ▲ Phoenix, Arizona 85003  
Phone (602) 254-6300 ▲ FAX (602) 254-6490  
E-mail: [mag@mag.maricopa.gov](mailto:mag@mag.maricopa.gov) ▲ Web site: [www.mag.maricopa.gov](http://www.mag.maricopa.gov)

May 20, 2008

TO: Members of the MAG Air Quality Technical Advisory Committee

FROM: John Kross, Queen Creek, Chair

SUBJECT: MEETING NOTIFICATION AND TRANSMITTAL OF TENTATIVE AGENDA

Tuesday, May 27, 2008 - 1:30 p.m.  
MAG Office, Suite 200 - Saguaro Room  
302 North 1<sup>st</sup> Avenue, Phoenix

Please park in the garage underneath the building. Bring your ticket to the meeting; parking will be validated. For those using transit, the Regional Public Transportation Authority will provide transit tickets for your trip. For those using bicycles, please lock your bicycle in the bike rack in the garage.

Pursuant to Title II of the Americans with Disabilities Act (ADA), MAG does not discriminate on the basis of disability in admissions to or participation in its public meetings. Persons with a disability may request a reasonable accommodation, such as a sign language interpreter, by contacting Jason Stephens at the MAG office. Requests should be made as early as possible to allow time to arrange the accommodation.

Members of the MAG Air Quality Technical Advisory Committee may attend in person, via video conference or by telephone conference call. Those attending by video conference must notify the MAG site three business days prior to the meeting.

Please be advised that under procedures approved by the MAG Regional Council, all MAG committees need to have a quorum to conduct the meeting. A quorum is a simple majority of the membership. If you are unable to attend the meeting, please make arrangements for a proxy from your entity to represent you.

## TENTATIVE AGENDA

### COMMITTEE ACTION REQUESTED

1. Call to Order

2. Call to the Audience

An opportunity will be provided to members of the public to address the Air Quality Technical Advisory Committee on items not scheduled on the agenda that fall under the jurisdiction of MAG, or on items on the agenda for discussion but not for action. Members of the public will be requested not to exceed a three minute time period for their comments. A total of 15 minutes will be provided for the Call to the Audience agenda item, unless the Air Quality Technical Advisory Committee requests an exception to this limit. Please note that those wishing to comment on action agenda items will be given an opportunity at the time the item is heard.

3. Approval of the April 24, 2008 Meeting Minutes

4. Evaluation of Proposed CMAQ Projects for the Federal Fiscal Year 2008 Interim Year End Closeout

An evaluation of proposed Congestion Mitigation and Air Quality Improvement Projects submitted for Federal FY 2008 Interim Year End Closeout has been conducted. By the April 18, 2008 deadline, twenty-one projects were submitted. The proposed projects are listed in order of cost effectiveness based on the total CMAQ funds for the project. The results will be presented for a possible recommendation to forward the evaluation to the MAG Transportation Review Committee for use in prioritizing projects.

In addition, an Air Quality Project is also provided. It is requested that the Air Quality Project be forwarded to the Transportation

2. For information.

3. Review and approve the April 24, 2008 meeting minutes.

4. For information, discussion and possible recommendation to forward the CMAQ evaluation to the MAG Transportation Review Committee for use in prioritizing projects. In addition, forward the Air Quality Project to the MAG Transportation Review Committee for the May 30, 2008 meeting,

Review Committee for the May 30, 2008 meeting. Please refer to the enclosed material.

5. Valley Telework and Ozone Alert Program Update

In 1998, the Regional Public Transportation Authority (RPTA) established the Valley Telework Project to provide telework promotional activities and telework technical assistance to public agencies and private businesses.

Telework is one of many trip reduction measures used to reduce ozone pollution. The RPTA will give an update on the Valley Telework Project and Ozone Alert Program for this ozone season.

6. Call for Future Agenda Items

The next meeting of the Committee has been tentatively scheduled for Thursday, June 26, 2008 at 1:30 p.m. The Chairman will invite the Committee members to suggest future agenda items.

5. For information and discussion.

6. For information and discussion.

MINUTES OF THE  
MARICOPA ASSOCIATION OF GOVERNMENTS  
AIR QUALITY TECHNICAL ADVISORY COMMITTEE MEETING

Thursday, April 24, 2008  
MAG Office  
Phoenix, Arizona

MEMBERS PRESENT

John Kross, Town of Queen Creek, Chairman  
#Shirley Gunther for David Fitzhugh, Avondale  
Lucky Roberts, Buckeye  
#Jim Weiss, Chandler  
#Jamie McCullough, El Mirage  
Lisa Taraborelli for Tami Ryall, Gilbert  
Doug Kukino, Glendale  
James Nichols, Goodyear  
\*Scott Bouchie, Mesa  
Gaye Knight, Phoenix  
\*Larry Person, Scottsdale  
#Antonio DeLaCruz, Surprise  
Oddvar Tveit, Tempe  
Mark Hannah, Youngtown  
\*Walter Bouchard, Citizen Representative  
#Corey Woods, American Lung Association of Arizona  
#Sam Villalobos for Barbara Sprungl, Salt River Project  
Brian O'Donnell, Southwest Gas Corporation  
Mark Hajduk, Arizona Public Service Company  
\*Gina Grey, Western States Petroleum Association  
\*Randi Alcott, Valley Metro  
\*Dave Berry, Arizona Motor Transport Association  
Jeannette Fish, Maricopa County Farm Bureau  
\*Russell Bowers, Arizona Rock Products Association  
\*Michelle Rill, Greater Phoenix Chamber of Commerce

\*Amanda McGennis, Associated General Contractors  
Spencer Kamps, Homebuilders Association of Central Arizona  
Mannie Carpenter, Valley Forward  
Kai Umeda, University of Arizona Cooperative Extension  
Beverly Chenausky, Arizona Department of Transportation  
Diane Arnst, Arizona Department of Environmental Quality  
\*Wienke Tax, Environmental Protection Agency  
Jo Crumbaker, Maricopa County Air Quality Department  
Duane Yantorno, Arizona Department of Weights and Measures  
Ed Stillings, Federal Highway Administration  
Cherie Hudson for Judi Nelson, Arizona State University  
Christopher Horan for B. Bobby Ramirez, Salt River Pima-Maricopa Indian Community  
\*David Rueckert, Citizen Representative

\*Members neither present nor represented by proxy.  
#Participated via telephone conference call.  
+Participated via video conference call.

OTHERS PRESENT

Lindy Bauer, Maricopa Association of Governments  
Julie Hoffman, Maricopa Association of Governments  
Patrisia Magallon, Maricopa Association of Governments  
Cathy Arthur, Maricopa Association of Governments  
Taejoo Shin, Maricopa Association of Governments  
Ranjith Dandanayakula, Maricopa Association of Governments  
Ieesuck Jung, Maricopa Association of Governments  
Dean Giles, Maricopa Association of Governments  
Randy Sedlacek, Maricopa Association of Governments  
Heather Hodgman, City of Apache Junction  
Michelle Wilson, City of Glendale  
David Johnson, Town of Buckeye

Lori Brown, Town of Buckeye  
Joonwon Joo, Arizona Department of Transportation  
Scott DiBiase, Pinal County  
Russell VanLeuven, Arizona Department of Agriculture  
Shane Kiesow, City of Apache Junction  
Leonard Montenegro, Arizona Department of Environmental Quality  
Ramona Simpson, Town of Queen Creek  
Steve Peplau, Arizona Department of Environmental Quality  
Holly Ward, Maricopa County Air Quality Department

1. Call to Order

A meeting of the MAG Air Quality Technical Advisory Committee was conducted on April 24, 2008. John Kross, Town of Queen Creek, Chair, called the meeting to order at approximately 1:35 p.m. Jamie McCullough, City of El Mirage; Antonio DeLaCruz, City of Surprise; Sam Villalobos, Salt River Project; Jim Weiss, City of Chandler; Corey Woods, American Lung Association; and Shirley Gunther, City of Avondale, attended the meeting via telephone conference call.

2. Call to the Audience

Mr. Kross stated that, according to the MAG public comment process, members of the audience who wish to speak are requested to fill out comment cards, which are available on the tables adjacent to the doorways inside the meeting room. Citizens are asked not to exceed a three minute time period for their comments. Public comment is provided at the beginning of the meeting for nonagenda items and nonaction agenda items. He noted that no public comment cards had been received.

3. Approval of the February 28, 2008 Meeting Minutes

The Committee reviewed the minutes from the February 28, 2008 meeting. Corey Woods, American Lung Association, moved and Doug Kukino, City of Glendale, seconded and the motion to approve the February 28, 2008 meeting minutes carried unanimously.

4. Maricopa County Clean Air Initiative

Holly Ward, Maricopa County Air Quality Department, provided a presentation on the Maricopa County Clean Air Initiative. She presented a picture to demonstrate the impact of pollution. Ms. Ward commented that the picture shows PM-2.5 from woodburning fireplaces. She presented statistics on the health issues resulting from pollution for Arizona residents. Ms. Ward mentioned that the region could also lose billions of dollars in highway funds if a workable plan is not in place. The Maricopa County Board of Supervisors kicked off the Running Out of Air Campaign on February 13, 2008. Ms. Ward stated that campaign components include television, radio, print ads, website, media outreach, community outreach and partnerships. She provided a campaign television commercial and radio ad. Ms. Ward discussed the ad agency that helped to create the ads. She mentioned that the ads will air from February through June. Ms. Ward showed a Spanish print ad for the Running Out of Air Campaign. She noted that everything points back to the Maricopa County Running Out of Air website, [www.runningoutofair.com](http://www.runningoutofair.com). Ms. Ward encouraged the Committee to visit the website. She stated that the goal is to educate the community on the problem. She discussed the tools available on the website.

Ms. Ward mentioned that the website asks people to make the clean air commitment and lists five things that people can do to be part of the solution. She stated that as a part of the community outreach, the County is providing presentations to various groups to help spread the word. Ms. Ward added that the County has also organized Clean Air Crew events. She stated that they will be at the upcoming Tempe Salsa Challenge event. Ms. Ward discussed the County's commitment to developing materials for public outreach. She requested that everyone make the clean air commitment, help spread the word by having the link [www.runningoutofair.com](http://www.runningoutofair.com) on their respective websites, and become a Running Out of Air ambassador.

Mr. Kross inquired how the County is educating the media and helping them become ambassadors of the Running Out of Air Campaign. Ms. Ward replied that the County has been conducting media

outreach through paid advertising and nonpaid media such as new releases and meetings with different organizations. She added that the County has met with the Business Journal, the Arizona Republic and the East Valley Tribune. Ms. Ward mentioned that it has been a challenge to make the story enticing for the newspapers and television stations.

Lisa Taraborelli, Town of Gilbert, inquired if the clips were available to run on government channels. Ms. Ward replied that the County has sent the Running Out of Air ads to 16 channel elevens. She added that if a city has not received the ads, they can contact the Maricopa County Air Quality Department.

Mannie Carpenter, Valley Forward, inquired if other ads are planned as part of the campaign. Ms. Ward responded that the contract for the Running Out of Air Campaign will run through June. She added that the hope is that there will be an evaluation at the end of June, the ad agency will look at the number of people who saw the ads, and they will then be able to approach the Board of Supervisors to continue to the next step. Ms. Ward mentioned that the County has talked about the ads evolving in the future. Mr. Carpenter commented on the Clark County Outreach Program. He inquired about the length of time it took Clark County to see progress. Ms. Ward replied that Clark County did not spend as much on their campaign and did it all in-house. She stated that the Clark County campaign was "Don't Be A Dusthole." Ms. Ward mentioned that Clark County used a technique that worked and caught people's attention. She added that Clark County is a different case example compared to Maricopa County.

Brian O'Donnell, Southwest Gas Corporation, commented on trying to attract visitors to the Valley. He mentioned that the region has cleaned the air a great deal throughout the years. Mr. O'Donnell asked about developing a positive ad on the progress that has been made in the region. He added that he understood that the County is trying to get people to take action on the air problem; however, the region also wants to attract people. Ms. Ward replied that Mr. O'Donnell's point was noted.

Gaye Knight, City of Phoenix, commented on a newsletter called Notes that is included with the water bills in Phoenix. She stated that the City of Phoenix is also conducting community outreach. Ms. Knight inquired if the County can provide any articles for the cities to use. Ms. Ward responded that the County can provide write-ups that would be within the Maricopa County regulations. She stated that the cities can streamline the write-ups to what they have adopted in terms of ordinances. Ms. Ward added that the County will have brochures on the campaign and will be sending a notice to city public information officers (PIOs) to notify them of the brochures and can include an example article. Ms. Knight thanked Ms. Ward for working with the PIOs. She asked that the County also provide the information to the Environmental Divisions. Ms. Knight inquired if the County has received any comments for having a woman in a single occupancy vehicle holding her breath which would incline people to not stand out on the bus stop and hold their breath. Ms. Ward replied that the only comment the County has received was about the woman not holding her cup of coffee when running into work. She stated that the ad is a play on any scenario which is the common everyday occurrence. Ms. Ward added that the County is open to ideas and concepts. Ms. Knight commented on the Running Out of Air website. She stated that when someone clicks on the problem link it says "you". Ms. Knight indicated that everyone has a significant role. Ms. Ward mentioned that it is important and vital for everyone's participation in the Running Out of Air Campaign.

5. Update on the Maricopa County Dust Control Rules

Jo Crumbaker, Maricopa County Air Quality Department, provided an update on the Maricopa County Dust Control Rules. She distributed briefings on the rules and ordinances that the County has completed. Ms. Crumbaker indicated that the rules are in place; however, some of the implementation pieces are still underway. She stated that the County will be finishing the paperwork that will go with the formal submission to MAG, the Arizona Department of Environmental Quality (ADEQ) and the Environmental Protection Agency (EPA). She mentioned that the first set of actions by the Maricopa County Board of Supervisors took place on February 20, 2008 for three ordinances. Ms. Crumbaker stated that the Leaf Blower Restriction Ordinance is similar to the city and town ordinances in that it prohibits the blowing of debris into the public roadways. Ms. Crumbaker mentioned that the ordinance also prohibits the operation of leaf blowers on unstabilized surfaces. She indicated that the County is starting its outreach process to the cities. Ms. Crumbaker added that the County may request that MAG hold a general kickoff for the outreach program.

Ms. Crumbaker stated that the second ordinance adopted was Vehicle Parking and Use on Unstabilized Vacant Lots. She stated that the ordinance is similar to city ordinances; however, there may be some additional exemptions. Ms. Crumbaker discussed the third ordinance adopted which was Off-Road Vehicle Use in Unincorporated Areas of Maricopa County. She stated that the County's authority for OHVs was not parallel to the city section primarily since it was preexisting from the 1990s. Ms. Crumbaker mentioned that the County's authorization for OHV statute read that you cannot operate a vehicle without lawful authority on private property or public property. She indicated that the exemption to the ordinance is road or highway. Ms. Crumbaker stated that the definition of road or highway does include private roads providing that they have been recorded. She added that it also has the same property owner permission which references the rules and regulations and orders that a government agency might put forward designating where you can and cannot ride. Ms. Crumbaker mentioned that the federal land managers are in the process of preparing transportation or travel management plans to designate a trail system or area where vehicles can operate.

Ms. Crumbaker stated that the next set of actions taken by the Maricopa County Board of Supervisors was on March 12, 2008. She stated that the County made changes to a number of rules. Ms. Crumbaker discussed Rule 300, Visible Emissions. She added that the County changed the way visible emissions are read from averaging to aggregating which reduced the number of times the standard can be exceeded. Ms. Crumbaker indicated that one of the County's goal for the process was to focus on more consistent compliance.

Ms. Crumbaker discussed Rule 314, Open Outdoor Fires and Indoor Fireplaces at Commercial and Institutional Establishments. She stated that the rule continues to exempt food preparation; however, the other devices cannot be operated during a high air pollution advisory unless it is gas fired. Ms. Crumbaker indicated that the County also enacted one of the provisions in Senate Bill 1552 which required the County to identify and restrict further the types of burning they allow that take place May 1<sup>st</sup> through September 30<sup>th</sup> of each year. Ms. Crumbaker stated that burning of debris is no longer allowed for construction land clearance purposes; however, it is allowed for agriculture.

Ms. Crumbaker discussed the revisions to Rule 316, Nonmetallic Mineral Processing. She stated that the most significant change to the rule is a requirement that during crushing and screening activities, the operator maintain a minimum moisture content. Ms. Crumbaker mentioned that the operation and maintenance plan requirement was broadened to include equipment that is utilized to control dust. She

stated that silt loading and silt content standards were also added for parking lots. In addition, the requirements for visible emissions were changed from averaging to aggregating. Ms. Crumbaker mentioned that the County had a request and put a requirement in that the rock product facilities post an information sign. She noted that this is also a requirement for construction.

Ms. Crumbaker stated that the last set of rules were passed on March 26, 2008. She discussed the updates to the Residential Woodburning Restriction Ordinance which now includes outdoor fire pits and chimineas. Ms. Crumbaker stated that the ordinance added an additional penalty for fourth and subsequent violations that was inserted by Senate Bill 1552. Ms. Crumbaker indicated that the County is now consistent with its revised statutory authority. She also discussed the revisions to Rule 200, Permit Requirements. Ms. Crumbaker mentioned that one change removed earthmoving permit requirements and adding such requirements to Rule 310. She stated that the other major change added a subcontractor registration program to comply with Senate Bill 1552. Ms. Crumbaker indicated that this revision will have a delayed date since the County is not ready to handle that number of subcontractors. She commented that the tentative timeline is to roll the project out and start the registration process June 1, 2008. Mark Hajduk, Arizona Public Service Company, inquired if the enforcement of that condition in Rule 310 will not occur until after June 1, 2008. Ms. Crumbaker responded yes.

Ms. Crumbaker discussed Appendix C, Fugitive Dust Test Methods. She stated that the procedures for the drop ball test were clarified. Ms. Crumbaker mentioned that the County also added a provision to determine opacity from livestock activities. Spencer Kamps, Homebuilders Association of Central Arizona, inquired about how opacity is determined from livestock activities. Ms. Crumbaker responded that she believes that the 20 percent opacity will be aggregated just like all of the other changes to the opacity standard. She added that there is also a property line standard.

Mr. O'Donnell inquired about the accumulation of minutes. Ms. Crumbaker replied that for aggregating, there is a reading every 15 seconds and then you divide the number of readings over 20 percent by four. She mentioned that for the property line standard, the methodology is set at 30 seconds in a six minute period.

Ms. Crumbaker discussed Rule 310, Fugitive Dust from Dust Generating Operations. She stated that Rule 310 was reorganized based on stakeholder input in order to have the control measures appear in one place. Ms. Crumbaker mentioned that a section was added to summarize all of the requirements. She indicated that there are also guidance documents. Ms. Crumbaker mentioned that a property line standard was added to the rule. She added that the recordkeeping requirements were also clarified. Ms. Crumbaker mentioned that the County revised the provisions for permanent stabilization by shortening the time frame from eight months to 30 days, which follows Clark County. She stated that a requirement was added to the rule which allowed watering, providing that the property was fenced.

Ms. Knight commented on watering and preventing vehicle trespass. She mentioned berms. Ms. Crumbaker replied that it is not specific for vehicle trespass; however, it does recognize berms and other forms of barriers. Ms. Knight commented on basic dust control training for site superintendents, water truck drivers, and water pull drivers if the site is more than one acre. She stated that she thought the state rule read that all water truck drivers have to be trained regardless if the site is over one acre. Ms. Crumbaker responded that she would report back on the question. Mr. Hajduk stated that he agreed with Ms. Knight. Ms. Crumbaker mentioned that another change was to include the dust coordinator and the basic dust control training for water truck drivers and site superintendents. She



stated that the other major revision was the change in trackout from a cumulative of 50 feet to a cumulative of 25 feet.

Ms. Crumbaker discussed Rule 310.01, Fugitive Dust from Non-Traditional Sources of Fugitive Dust. She stated that there was a major change to livestock activities. Ms. Crumbaker indicated that there were two simple controls that did not work. She mentioned that the County added procedures for clarifying who does the traffic counts for paving the unpaved road. Ms. Crumbaker indicated that the County also added the authority provided under Senate Bill 1552 to enter and stabilize a vacant property after an appropriate 30 day notice to the land owner. In addition, the County added a property line standard to the vehicle use in open areas and vacant lots, open areas and vacant lots, unpaved parking lots, and livestock activities.

Mr. Kamps inquired about the penalty for failing to stabilize a vacant lot within 30 days. Ms. Crumbaker replied that the penalty under Rule 310.01 goes back to the same process as the contractors. Mr. Kamps asked if the penalty would be \$10,000 per day. Ms. Crumbaker responded that if it is the owner of the property, it goes back to the County's authority under air quality. The operator of the vehicle on the property will be subject to the penalties as stated on page one of the handout. Mr. Kamps inquired if the driver is cited and not the land owner. Ms. Crumbaker replied that under the ordinances, the vehicle operator is cited and under the rule, the land owner is cited. Mr. Kamps inquired if the vehicle owner is subject to a class 3 misdemeanor and the land owner is subject to \$10,000 per day. Ms. Crumbaker responded yes.

Ms. Crumbaker continued to discuss the revisions to Rule 310.01. She stated that trackout was added as a measure in case the parking lot surface fails. Ms. Crumbaker added that the trackout requirement will be on the parking lot provisions. She discussed modifications that address residential parking to make the rule consistent with Senate Bill 1552.

Mr. O'Donnell commented on requirements being in different sections. He referred to the unstabilized lot requirements in the Vehicle Parking and Use on Unstabilized Vacant Lots Ordinance and Rule 310. Mr. O'Donnell inquired if the requirements were the same. Ms. Crumbaker responded that one requirement is for the vehicle operator and the other is specific to the land owner. Mr. O'Donnell commented on having all the requirements in one area. Ms. Crumbaker responded that the County is working on a process with the federal, state and local land managers to develop a matrix to put the requirements in a place where the vehicle operators will expect to see them. Ms. Crumbaker added that the process will specifically look at the OHV ordinances and vacant lot ordinances and be coordinated with all the land managers. She mentioned working with land managers to share their designations and maps in a single place or brochure for vehicle operators to be able to see the requirements. Ms. Crumbaker stated that she appreciated Mr. O'Donnell's comments and stated that the County is working on the issue as part of its outreach efforts. Ms. Knight thanked Ms. Crumbaker and the County for all the work and effort.

6. Draft Modeling Protocol in Support of an Eight-Hour Ozone Redesignation Request and Maintenance Plan for the Maricopa Nonattainment Area

Taejoo Shin, MAG, provided a presentation on the Draft Modeling Protocol in Support of an Eight-Hour Ozone Redesignation Request and Maintenance Plan for the Maricopa Nonattainment Area. He added that the draft modeling protocol can be downloaded from the MAG website. Mr. Shin stated that the Maricopa Nonattainment Area was initially classified as a Moderate Nonattainment

Area and subsequently reclassified as a Serious Nonattainment Area for the one-hour ozone standard. He mentioned that air quality monitoring data indicates that the area has had no violations of the one-hour ozone standard since 1996. Mr. Shin stated that MAG submitted the One-Hour Ozone Redesignation Request and Maintenance Plan in January 2004, which was approved by EPA. He mentioned that EPA revoked the one-hour ozone standard on June 15, 2005.

Mr. Shin indicated that EPA announced the eight-hour ozone standard and expanded the Maricopa Nonattainment Area to approximately 5,000 square miles of Maricopa County and Apache Junction of Pinal County. Mr. Shin added that the area was designated as a Basic Nonattainment Area with an attainment date of June 15, 2009. He stated that MAG submitted the Eight-Hour Ozone Plan on June 15, 2007. Mr. Shin mentioned that MAG has successfully demonstrated that the area will attain the eight-hour ozone standard in the ozone season of 2008. He commented that air quality monitoring data indicates that there has been no violations of the eight-hour ozone standard since 2005. Mr. Shin stated that an Eight-Hour Ozone Redesignation Request and Maintenance Plan needs to be submitted to EPA. He added that an ozone modeling demonstration is required for the plan. Mr. Shin indicated that MAG has developed a modeling protocol for the modeling demonstration.

Mr. Shin discussed the objectives of the modeling protocol. He stated that the protocol is designed to serve as a means for planning and communicating how a modeling demonstration will be performed. He added that the major objective of the modeling protocol is to build consensus among all interested parties concerning modeling issues. Mr. Shin mentioned that by reviewing and discussing the modeling issues in advance, the technical credibility for the modeling demonstration can be enhanced. He also discussed encouraging the participation of all interested parties in the modeling activities.

Mr. Shin presented the schedule for the Eight-Hour Ozone Modeling Demonstration for the MAG Eight-Hour Ozone Redesignation Request and Maintenance Plan. He stated that comments are being collected and addressed in the modeling protocol. Mr. Shin indicated that after addressing the comments, MAG will submit the protocol to EPA for approval. He mentioned that once the protocol is approved by EPA, emission inventories will be developed and emission control measures will be evaluated. Mr. Shin indicated that the modeling demonstration will be completed by the end of August 2008. He stated that the draft technical support document will be available for review by the end of October 2008. Mr. Shin added that the draft technical support document and plan will be provided to the Air Quality Technical Advisory Committee for a recommendation in January 2009. He indicated that the plan will be submitted to EPA in February 2009.

Mr. Shin discussed the model selection process. He mentioned that the CAMx, CMAQ and UAM-V models were considered for the modeling demonstration. He stated that the UAM-V model is a less popular model in this modeling application and a proprietary model; therefore, the model was removed from the model selection. Mr. Shin indicated that the CAMx model was used for the Eight-Hour Ozone Plan and has a better model performance than the CMAQ model. He stated that the CAMx model was chosen for this modeling demonstration. Mr. Shin discussed the MAG Air Quality Modeling Chain. He also presented the CAMx and MM5 modeling domains.

Mr. Shin discussed the Eight-Hour Ozone Modeling Inner Domain. He indicated that the four kilometer CAMx modeling domain covers the entire Eight-Hour Ozone Nonattainment Area. Mr. Shin stated that the four kilometer CAMx modeling domain has a four by four kilometer grid cell size resolution. He added that the domain includes 50 grid cells from west to east and 29 grid cells from south to north.

Mr. Shin mentioned that the modeling protocol used the same modeling configuration as that developed for the Eight-Hour Ozone Plan. He indicated that the same three high ozone episodes developed for the Eight-Hour Ozone were used. The three episodes are: August episodes, 10 modeling days; June episodes, 8 modeling days; and July episodes, 10 modeling days. He stated that there was a total of 28 modeling days which includes three spin-up days. Mr. Shin stated that air quality data was obtained from Maricopa County, Pinal County, and ADEQ monitoring networks. He added that the data obtained was used to develop the three high ozone episodes and conduct model performance variation and maintenance tests. Mr. Shin indicated that meteorology data was obtained from AZMET, National Weather Service, and FSL networks. He mentioned that the vertical resolution top height is approximately 16 kilometers. Mr. Shin stated that the assumptions were 35 layers for the MM5 modeling domain, 20 layers for the CAMx 12 kilometer modeling domain, and 23 layers for the CAMx four kilometer modeling domain. He added that for the Initial and Boundary Condition (IC/BC) data, 12 kilometers IC/BC data will be provided by ENVIRON and the four kilometers IC/BC will be obtained from the CAMx output for the outer 12 kilometer modeling domain. Mr. Shin presented the geographical locations of the air quality monitoring sites. He also showed the meteorological monitoring sites for the three networks.

Mr. Shin stated that there are two methodologies available for the modeling performance evaluation. He indicated that operational evaluation assesses how accurately the model predicts observed ozone concentrations. Diagnostic evaluation tests how well the model characterizes the sensitivity of ozone to emission changes. Mr. Shin mentioned that the two methodologies were applied to the Eight-Hour Ozone Plan. He indicated that under the operational evaluation, the CAMx model showed a good model performance for the June episode; however, it unpredicted the July and August episodes. Mr. Shin stated that for diagnostic evaluation, several sensitivity analyses were conducted in the Eight-Hour Ozone Plan. He indicated that the results showed that ozone predictions were more sensitive to onroad emissions and least sensitive to point source emissions. Mr. Shin added that ozone predictions decreased as NO<sub>x</sub> emissions increased.

Mr. Shin stated that 2025 was assumed as the maintenance modeling demonstration year. He added that a 2025 emissions inventory for the maintenance plan will need to be developed. Mr. Shin mentioned that for point source emissions, the potential to emit emissions for 2025 power plants emissions will be assumed. He indicated that other point source and area source emissions will be projected from the 2005 emissions inventory to 2025 emissions using the socio-economic growth factors. The 2025 transportation network data derived by a transportation model will be used for the onroad mobile source emissions. Mr. Shin indicated that nonroad mobile source emissions will be developed using the 2025 projected vehicle activity and population data and 2025 emission factors. He stated that the same level of biogenic emissions used in the Eight-Hour Ozone Plan for the three high ozone episodes will be assumed. Mr. Shin added that all emission reduction credits from the committed control measures in the Eight-Hour Ozone Plan will be included. He mentioned that two new control measures from Senate Bill 1552 will also be included.

Mr. Shin discussed the maintenance demonstration. He stated that the 2025 design value must be less than 85 parts per billion (ppb) in order to pass the maintenance test. Mr. Shin added that the 2025 design value can be calculated by multiplying the baseline design value by the relative response factor. He discussed the relative response factor and baseline design value. Mr. Shin mentioned that there are some uncertainties involving the emissions, meteorological data, growth projections, control measure effectiveness, and the model itself. He stated that if the future 2025 design value is close to the

eight-hour ozone standard, EPA requires a supplemental analysis. He discussed submitting corroboratory tests and the Weight of Evidence Approach if the 2025 design value is greater than 82 ppb and less than 85 ppb. Mr. Shin explained that the Weight of Evidence Approach is the document that describes why the evidence supports the conclusion that the area will attain the eight-hour ozone standard. He mentioned that the modeling protocol and the technical support document will be submitted to EPA and the Air Quality Planning Team for review and comments.

Mr. O'Donnell commented on the model configuration and a top height of 16 kilometers. He mentioned the 35 layers for the MM5 domain, 20 layers for the CAMx 12 kilometers domain, and 23 layers of the CAMx four kilometer domain. Mr. O'Donnell inquired if the model has 78 layers from the ground level. Mr. Shin responded no. He indicated that the MM5 modeling domain has 35 layers and the CAMx has a total of 20 layers for the 12 kilometers domain. Mr. O'Donnell clarified that it is not in vertical layers. Mr. Shin replied that is correct. Mr. O'Donnell inquired if the model had 78 layers. Mr. Shin responded that the MM5 modeling domain contained 35 layers and the CAMx modeling domain contained 20 layers. Mr. O'Donnell inquired if the modeling domains went from 20 to 35 layers depending on the model. Mr. Shin replied yes.

Diane Arnst, ADEQ, commented on the Eight-Hour Ozone Modeling Inner Domain. She stated that the eastern boundary of the modeling domain coincides with the eastern edge of the nonattainment area. Ms. Arnst inquired about why the western edge of the modeling domain is further west than the nonattainment area. Mr. Shin responded that the point was to include the entire Eight-Hour Ozone Nonattainment Area in the modeling domain. He indicated that the modeling domain needs to be rectangular. Ms. Arnst inquired about why the modeling domain is not closer to the nonattainment area on the west as it is on the eastern boundary. Ms. Shin responded that a similar modeling domain was used in the Eight-Hour Ozone Plan. Ms. Arnst inquired if the modeling domain is the same as the one used in the nonattainment plan. Mr. Shin replied yes. He stated that it was important to include the entire Eight-Hour Ozone Nonattainment Area. Sam Villalobos, Salt River Project, requested the link to the modeling protocol. Mr. Shin provided the link.

#### 7. New Strengthened Eight-Hour Ozone Standard

Lindy Bauer, MAG, provided a briefing on the new strengthened eight-hour ozone standard. She stated that on March 12, 2008, EPA revised the eight-hour ozone standard to 0.075 parts per million (ppm). She mentioned that this strengthens the previous standard of 0.08 ppm. Ms. Bauer indicated that according to EPA, states are required to make recommendations to EPA no later than March 2009 for areas to be designated attainment, nonattainment, and unclassifiable. She stated that by March 2010, EPA will issue final designations. Ms. Bauer mentioned that EPA will be requiring that plans be completed approximately three years after designation or no later than 2013. She indicated that EPA will be issuing the implementation guidance for the new standard. Ms. Bauer stated that at the February 28, 2008 Committee meeting, MAG staff discussed the ozone monitoring data. She mentioned that the data from that presentation shows that seven out of twenty monitors in the area are at 0.075 ppm or lower. Ms. Bauer mentioned that the remaining two thirds of the monitors will need to be below the new standard in order for the area to not be designated a nonattainment area. She indicated that EPA will be looking at the data from 2007, 2008, and 2009 when making the designations.

Mr. Kamps inquired about what the next steps would be if the monitors are out of compliance. Ms. Bauer responded that EPA would designate the region a nonattainment area. She added that EPA will be issuing the implementation guidance and based on the severity of the region being out of compliance, EPA would put the region in a classification or category. Ms. Bauer stated that there would be specific requirements that would need to be met based on the classification or category. She added that the requirements are not known at this time; however, MAG will keep the Committee informed as new information is received.

Ms. Knight asked if other parts of the state are expected to violate the new eight-hour ozone standard. Ms. Arnst responded that four counties in the southern part of the state may violate the new standard and Yuma is on the edge. She noted that EPA will be looking at data for future years. Ms. Knight inquired if the future data will be better or worse. Ms. Arnst mentioned federal measures, but added that it is anybody's guess.

Mr. Villalobos inquired about the timing of designations for the new standard. Ms. Bauer responded that if the region is not in compliance using data from 2007, 2008, and 2009, EPA would designate the region as a nonattainment area. She added that the implementation guidance will be key in understanding how EPA intends to apply the new standard and how long the region would have to attain the standard. Ms. Bauer mentioned that MAG will continue to watch the monitoring data. She stated that the eight-hour ozone monitoring data presented at the February Committee meeting showed that one-third of the monitors in the region are meeting the new standard. Ms. Bauer discussed fleet turnover and new measures enacted by the Legislature in Senate Bill 1552 that could help attain the standard. Ms. Arnst mentioned the liquid leaker rule.

Mr. Carpenter commented on the modeling work focused on the 85 ppb eight-hour ozone standard. He inquired if the modeling will be easily adaptable to the new standard. Mr. Shin responded that the modeling demonstration is only considering the 85 ppb standard. He added that a redesignation request and maintenance plan needs to be submitted for the 85 ppb eight-hour ozone standard and then an attainment plan can be developed for the new standard. Mr. Carpenter stated that it is his understanding that most of the expense in modeling is the initial setup and the different scenarios. He added that it is his assumption that the model would be able to be applicable to the new standard with a different target in mind. Ms. Bauer stated that the CAMx model can be used for the new standard. She added that MAG is also looking at a new meteorological model. Ms. Bauer mentioned that the target date would be different and the episode days may be different as well. She noted that model validation is always difficult.

Mr. Hajduk asked where the region stands with violations and exceedances of PM-10. Ms. Crumbaker responded that there is a total of three PM-10 exceedances in 2008. She added that one exceedance was at the Buckeye monitor and two were at the West 43<sup>rd</sup> Avenue monitor. Ms. Crumbaker indicated that all three exceedances are associated with wind events. She mentioned that the challenge will be analyzing the exceedances. Ms. Crumbaker noted that the latest exceedance at the West 43<sup>rd</sup> Avenue monitor was over the standard by 0.28 micrograms per cubic meter. She added that the exceedance at the Buckeye monitor was over the standard by approximately five micrograms per cubic meter. Ms. Crumbaker stated that the magnitude of the exceedances are decreasing; however, it is still a challenge. Mr. Hajduk inquired if one more exceedance will result in a violation and start the process all over again. Ms. Crumbaker replied that a fourth exceedance at one monitor would require another year of five percent reductions. She added that EPA will probably question a third exceedance at one monitor.

Mr. Hajduk inquired if the 2008 exceedances were still being evaluated to determine if they are wind events. Ms. Crumbaker responded that is correct.

Mr. Kamps asked for clarification on the number of exceedances. Ms. Crumbaker replied that the standard is per monitor. She stated that the West 43<sup>rd</sup> Avenue monitor currently has two exceedances in 2008. Mr. Kamps inquired if the region will be violating with a third exceedance at the West 43<sup>rd</sup> Avenue monitor. Ms. Crumbaker replied that a violation of the standard is a three year average greater than 1.0. She added that the fourth exceedance would be a violation of the standard.

8. PM-10 Source Attribution and Deposition Study

Cathy Arthur, MAG, provided an update on the PM-10 Source Attribution and Deposition Study. She stated that on February 28, 2008, Bob Dulla from Sierra Research gave a presentation on the study. She added that comments were received from Maricopa County and ADEQ on the report. Ms. Arthur mentioned that there was additional analysis completed by the consultant and the final report and appendices are now available on the MAG website. She added that the additional analysis that was completed in response to the County and ADEQ comments are part of the finalized document that is posted.

Ms. Bauer mentioned the importance of keeping in mind that the 2008 PM-10 exceedances may all be natural events. She added that the exceedances would not count against the region if they are high wind events.

9. Call for Future Agenda Items

Mr. Kamps commented that many of the cities are developing their ordinances for parking and vacant lots. He stated that they are exempt from the ordinances under Senate Bill 1552 since they are permitted sources. However, they are being pulled into a lot of the ordinances. He commented on it being an oversight. Mr. Kamps mentioned that a lot of the Public Works Departments are developing the ordinances and may not be familiar with dust and the regulatory environment and believe construction is trying to be exempt from any dust regulation. Mr. Kamps indicated that they are trying to communicate that they are regulated by the County and not the cities. He stated that they have had difficulties in getting permitted sources exempt from the ordinances. Mr. Kamps requested the cities pass the message that permitted sources should be exempt from the ordinances per state statute.

Mr. Kross announced that the next meeting of the Committee has been tentatively scheduled for May 27, 2008 at 1:30 p.m. With no further comments, the meeting was adjourned.



May 20, 2008

TO: Members of the MAG Air Quality Technical Advisory Committee

FROM: Dean Giles, Air Quality Planning Program Specialist

SUBJECT: EVALUATION OF PROPOSED CMAQ PROJECTS FOR THE FEDERAL  
FISCAL YEAR 2008 INTERIM YEAR END CLOSEOUT

The Maricopa Association of Governments has conducted an evaluation of proposed Congestion Mitigation and Air Quality Improvement projects submitted for the Federal Fiscal Year 2008 Interim Year End Closeout. The results of the project evaluation are provided in Attachment A ranked by cost-effectiveness based on the total CMAQ funds for the project. This information is being presented to the MAG Air Quality Technical Advisory Committee for a possible recommendation to forward the Congestion Mitigation and Air Quality Improvement (CMAQ) evaluation to the MAG Transportation Review Committee for use in prioritizing projects. In addition, an Air Quality Project provided in Attachment B may also be forwarded to the Transportation Review Committee for their May 30, 2008 meeting.

### PROJECT EVALUATION

For the Federal FY 2008 Interim Year End Closeout, MAG has estimated \$14.7 million to be available for projects. The deadline for submitting requests for MAG federal closeout funding was April 18, 2008. Twenty-one projects, requesting \$18.45 million, were evaluated for estimated emissions reductions and cost-effectiveness based on the total CMAQ funds for the projects.

In accordance with CMAQ guidance, MAG staff evaluated the projects for air quality benefits and calculated the cost-effectiveness consistent with the CMAQ methodologies. Beginning in 1999, MAG has developed and applied methodologies for assessing emission reduction benefits for proposed CMAQ projects in accordance with federal guidance for the CMAQ Program. The latest version of the CMAQ methodologies are dated August 15, 2005.

The projects have been ranked in order from most cost-effective to least cost-effective in the attachments. In general, the methodologies for calculating cost-effectiveness involve the estimation of emissions reductions for total organic gases (TOG), nitrogen oxides (NOx), and PM-10, measured in kilograms per day. The annualized cost-effectiveness of each project is measured in CMAQ dollars per metric ton of total emissions reduced.

The Environmental Protection Agency MOBILE6.2 emission model was used to estimate TOG, NOx, and PM-10 exhaust emission factors for the implementation year of the project. The emission factors from the EPA AP-42 guidance were used to estimate reentrained PM-10 emissions on paved and unpaved roads, where appropriate.

The purpose of the CMAQ Program is to provide federal funding for transportation-related projects and programs designed to assist nonattainment and maintenance areas in complying with federal air quality standards. On December 19, 2006, the Federal Highway Administration published Interim Guidance on the Congestion Mitigation and Air Quality Improvement Program that incorporates Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy For Users (SAFETEA-LU) provisions. A CMAQ fact sheet is enclosed.

The evaluation of proposed CMAQ projects for the Federal FY 2008 Interim Year End Closeout in the attachment is being presented to the MAG Air Quality Technical Advisory Committee (AQTAC) for a possible recommendation to forward the air quality evaluations to the MAG Transportation Review Committee (TRC) for use in prioritizing projects for funding. A description of the role of the AQTAC in the Congestion Mitigation and Air Quality Improvement Project Evaluation Process is enclosed. In addition, an Air Quality Project may also be forwarded by the Air Quality Technical Advisory Committee to the TRC. If you have any questions or need additional information, please contact me at (602) 254-6300.

Attachments



**PROPOSED CMAQ PROJECTS FOR THE FEDERAL FY 2008 INTERIM YEAR END CLOSEOUT-RANKED BY COST EFFECTIVENESS**

Attachment A

Agency	TIP Number	Location	Description of Work	Fiscal Year	Emissions Reduction Weighted TOG (kg/day)	Emissions Reduction Weighted NOX (kg/day)	Emissions Reduction Weighted PM-10 (kg/day)	Emissions Reduction Weighted Total (kg/day)	Cost Effectiveness (\$/metric ton) <sup>1</sup>	CMAQ Funds Requested	Notes (below)
MAG	MAG08-606	Regionwide	Purchase the 12 remaining sweepers from the Prioritized List of Proposed PM-10 Certified Street Sweeper Projects for FY 2008 CMAQ. The projects in prioritized order are: Maricopa County (2), ASU, ADOT, Queen Creek, Phoenix (2), Peoria, Avondale, Goodyear, Paradise Valley and Mesa.	2008			402.36	402.36	\$1,936	\$1,959,471	2
Tempe	TMP11-703	Various Locations	Install wireless communications and Closed Circuit Television (CCTV) monitoring at 26 intersections.	2008	9.33	12.88					
Goodyear	NEW	Interstate-10 at Litchfield Rd	Acquire land - regional park-and-ride	2009	1.11	1.08	6.59	8.78	\$5,865	\$218,400	3,7
Goodyear	NEW	Citywide	Purchase bus <30 feet - 5 expand	2008	0.80	0.78	4.34	5.93	\$15,649	\$746,000	8
Valley Metro Rail	NEW	Regionwide	Reimbursement for construction activities for the Central Phoenix/East Valley (METRO) light rail transit project	2008	19.66	19.55	107.75	146.95	\$20,279	\$438,000	4
Mesa	MES13-905	Consolidated Canal Multi-Use Path, 8th Street to Lindsay Road	Complete the design and construction of a 10-foot wide concrete pathway.	2008	0.31	0.15	0.36	0.81		\$5,618,000	4
Chandler	CHN06-216C1	Western Canal: Price Road to Hamilton Street (1 of 2)	Construct a paved pathway along the south bank of the Western Canal	2008	0.31	0.15	0.36	0.82	\$74,732	\$1,099,000	5,6
Gilbert	GLB11-731	Town of Gilbert Heritage District	Design and construction of sidewalks, landscaping and other pedestrian improvements	2008	0.08	0.02	0.06	0.15	\$317,608	\$379,086	5,6
Scottsdale	SCT08-608	Indian Bend Wash: Jackrabbit Rd to Chaparral Rd	Add multi-use path and grade-separated crossing	2008	0.11	0.05	0.12	0.28	\$498,558	\$420,000	5,6
Phoenix	PHX10-632	Salt River: 24th St to Priest Drive (Rio Salado Pathway- South side)	Design & acquire right of way for multi-use path	2008	0.16	0.08	0.19	0.43	\$590,120	\$412,560	5,6
Chandler	CHN08-610	Loop 101 (Price Freeway) at Galveston Street	Final design of a multi-use path and bridge over the Loop 101 (Price Freeway) at Galveston Street	2009	0.09	0.04	0.11	0.24	\$679,340	\$400,000	5,6
Mesa	MES08-807	TS Signal Conversions - Phase 3 (Mesa Dr. and Main Street)	Expand fiber-optic network and link 11 traffic signals to the Mesa TMC	2008	0.79	0.40		1.20	\$787,967	\$618,608	5,6
Phoenix	PHX11-737	24th St: Chipman Rd to Roeser Rd	Acquire right of way and construct multi-use path	2009	0.09	0.04	0.11	0.23	\$1,272,236	\$1,908,227	3,7
Glendale	GLN07-777	51st Avenue at Camelback Rd	Safety improvements to the 51st/Camelback intersection	2008	0.04	0.02	0.00	0.05	\$1,349,080	\$1,700,000	5,6
Avondale	AVN08-624	McDowell Rd.: Aqua Fria Bridge to 119th Ave (north side)	Construct pedestrian improvements to the sidewalk on the north side of the roadway.	2008	0.03	0.01	0.02	0.06	\$1,361,402	\$400,000	9
Avondale	AVN11-706	Buckeye Road: Avondale Blvd. to 117th Ave. alignment	To design and construct sidewalks and landscaping	2008	0.02	0.00	0.01	0.03	\$1,494,567	\$302,820	5,6
Tempe	TMP04-102	Curry Road: Scottsdale Road to McClintock Drive	Design and construct pedestrian facilities	2008	0.03	0.01	0.02	0.06	\$1,724,804	\$305,900	5,6
Glendale	GLN05-501	51st Avenue at Northern Avenue	Safety improvements to the 51st/Northern intersection	2008	0.01	0.01	0.00	0.02	\$2,549,882	\$463,960	5,6
Surprise	SUR08-806	Bell Road and Coyote Lakes, Dysart and 134th Ave.	Provide and install Closed Circuit Television (CCTV) cameras on existing traffic signals	2008	0.70	NB <sup>10</sup>		NB <sup>10</sup>	\$4,154,338	\$400,000	9
				2008	0.70	NB <sup>10</sup>		NB <sup>10</sup>	NB <sup>10</sup>	\$8,745	3,7

**PROPOSED CMAQ PROJECTS FOR THE FEDERAL FY 2008 INTERIM YEAR END CLOSEOUT-RANKED BY COST EFFECTIVENESS**

Attachment A

Agency	TIP Number	Location	Description of Work	Fiscal Year	Emissions Reduction Weighted TOG (kg/day)	Emissions Reduction Weighted NOX (kg/day)	Emissions Reduction Weighted PM-10 (kg/day)	Emissions Reduction Weighted Total (kg/day)	Cost Effectiveness (\$/metric ton) <sup>1</sup>	CMAQ Funds Requested	Notes (below)
Tempe	TMP09-802	Citywide	Purchase and install malfunction management units in all traffic control cabinets.	2008	6.44	NB <sup>10</sup>		NB <sup>10</sup>	NB <sup>10</sup>	\$135,950	3,7
Chandler	NEW	Various Locations	Purchase of Autoscope video detection cameras to be placed in various signalized intersections around the City.	2008	6.75	NB <sup>10</sup>		NB <sup>10</sup>	NB <sup>10</sup>	\$518,650	3,7

**Notes:**

1. Cost Effectiveness is expressed as the total CMAQ Project cost (in dollars) per annual emissions reduction (in metric tons).
2. Supports the measure in the Serious Area PM-10 Plan and Five Percent Plan for PM-10: "PM-10 Efficient Street Sweepers."
3. Supports the Transportation Control Measure (TCM) in the Serious Area PM-10 Plan and CO Maintenance Plan: "Develop Intelligent Transportation Systems".
4. Supports the TCM in the Serious Area PM-10 Plan and CO Maintenance Plan: "Mass Transit Alternatives."
5. Supports the TCM in the Serious Area PM-10 Plan and CO Maintenance Plan: "Encouragement of Pedestrian Travel."
6. Supports the TCM in the Serious Area PM-10 Plan and CO Maintenance Plan: "Encouragement of Bicycle Travel."
7. Supports the TCM in the Serious Area PM-10 Plan and CO Maintenance Plan: "Coordinate Traffic Signal Systems."
8. Supports the TCM in the Serious Area PM-10 Plan and CO Maintenance Plan: "Park and Ride Lots."
9. Supports the TCM in the Serious Area PM-10 Plan and CO Maintenance Plan: "Reduce Traffic Congestion at Major Intersections."

<sup>10</sup> NB : No Benefit

# PROPOSED AIR QUALITY CMAQ PROJECTS FOR THE FY 2008 INTERIM YEAR END CLOSEOUT

Attachment B

Agency	TIP Number	Location	Description of Work	Fiscal Year	Emissions Reduction Weighted TOG (kg/day)	Emissions Reduction Weighted NOX (kg/day)	Emissions Reduction Weighted PM-10 (kg/day)	Emissions Reduction Weighted Total (kg/day)	Cost Effectiveness (\$/metric ton) <sup>1</sup>	CMAQ Funds Requested	Notes (below)
MAG	MAG08-606	Regionwide	Purchase the 12 remaining sweepers from the Prioritized List of Proposed PM-10 Certified Street Sweeper Projects for FY 2008 CMAQ. The projects in prioritized order are: Maricopa County (2), ASU, ADOT, Queen Creek, Phoenix (2), Peoria, Avondale, Goodyear, Paradise Valley and Mesa.	2008			402.36	402.36	\$1,936	\$1,959,471	2

Notes:

1. Cost Effectiveness is expressed as the total CMAQ Project cost (in dollars) per annual emissions reduction (in metric tons).

2. Supports the measure in the Serious Area PM-10 Plan: " PM-10 Efficient Street Sweepers. "

**ROLE OF THE MAG AIR QUALITY TECHNICAL ADVISORY COMMITTEE  
IN THE CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT (CMAQ)  
PROJECT EVALUATION PROCESS**

CMAQ Projects for the Transportation Improvement Program

- Forward the evaluation of proposed CMAQ projects for the MAG Transportation Improvement Program to the MAG Transportation Review Committee and modal committees for use in prioritizing projects.
- Rank the Air Quality Projects to be forwarded to the MAG Transportation Review Committee.

Sequence of Committee Actions: Air Quality Technical Advisory Committee, Transportation Review Committee and Modal Technical Advisory Committees, Management Committee, Transportation Policy Committee, Regional Council.

PM-10 Certified Street Sweeper Projects

- Recommend a prioritized list of proposed PM-10 Certified Street Sweeper Projects for CMAQ funding and retain the prioritized list for any additional CMAQ funds that may become available due to year-end closeout, including redistributed obligation authority, or additional funding received by this region.

Sequence of Committee Actions: Air Quality Technical Advisory Committee, Management Committee, Regional Council.

Paving Unpaved Road Projects

- Rank the proposed Paving Unpaved Road Projects for CMAQ funding and forward to the MAG Transportation Review Committee.

Sequence of Committee Actions: Air Quality Technical Advisory Committee, Transportation Review Committee, Management Committee, Transportation Policy Committee, Regional Council.

# MAG COMMITTEE STRUCTURE

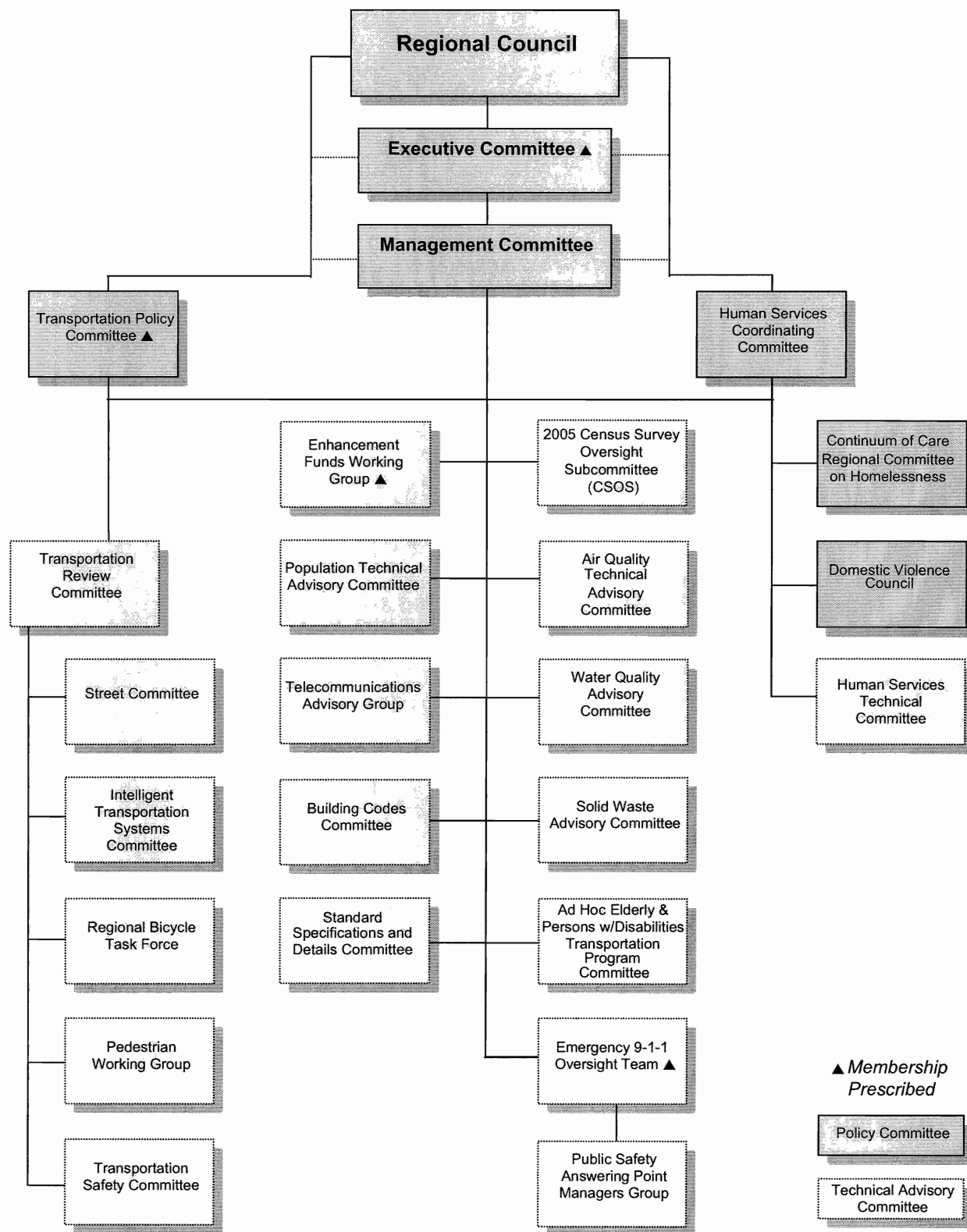


Figure 7: MAG Committee Structure

## CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT PROGRAM FACT SHEET

According to the final Congestion Mitigation and Air Quality Improvement (CMAQ) Program Guidance, effective October 31, 2006, the purpose of the CMAQ program is to fund transportation projects or programs that will contribute to attainment or maintenance of the national ambient air quality standards for ozone, carbon monoxide, and particulate matter. Table 1 provides a description of the 16 project categories contained in federal CMAQ guidance as well as general activities and projects eligible for CMAQ funding. Table 1 also includes the CMAQ eligible projects and programs added from transportation reauthorization, Safe Accountable Flexible Efficient Transportation Equity Act: A Legacy For Users (SAFETEA-LU). Table 2 provides a list of ineligible CMAQ activities and projects.

The development of a CMAQ-eligible project may occur through a public-private partnership. Private entity proposals that benefit the general public by clearly reducing emissions require a legal written agreement between the public agency and private or nonprofit entity specifying the use of funds, roles and responsibilities of participating entities, cost sharing arrangements for capital investments and/or operating expenses, and how the disposition of land, facilities, and equipment should original terms of the agreement be changed. Eligible costs under this section may not include costs to fund an obligation imposed on private sector or nonprofit entities under the CAA or any other federal law except where the incremental portion of a project that exceeds the obligation under Federal law.

**Table 1. Eligible CMAQ Activities and Projects**

**1. Transportation control measures (TCMs) found in 42 U.S.C. §7408(f)(1)**

- programs for improved public transit
- restriction of certain roads or lanes to, or construction of such roads or lanes for use by, passenger buses or high occupancy vehicles
- employer-based transportation management plans, including incentives
- trip-reduction ordinances
- traffic flow improvement programs that achieve emission reductions
- fringe and transportation corridor parking facilities serving multiple-occupancy vehicle programs or transit service
- programs to limit or restrict vehicle use in downtown areas or other areas of emission concentration particularly during periods of peak use
- programs for the provision of all forms of high-occupancy, shared ride services
- programs to limit portions of road surfaces or certain sections of the metropolitan area to the use of non-motorized vehicles or pedestrian use, both as to time and place
- programs for secure bicycle storage facilities and other facilities, including bicycle lanes, for the convenience and protection of bicyclists, in both public and private areas
- programs to control extended idling of vehicles
- programs to reduce motor vehicle emissions from extreme cold-start conditions
- employer-sponsored programs to permit flexible work schedules
- programs and ordinances to facilitate non-automobile travel, provision and utilization of mass transit, and to generally reduce the need for single-occupant vehicle travel, as part of transportation planning and development efforts of a locality, including programs and ordinances applicable to new shopping centers, special events, and other centers of vehicle activity
- programs for new construction and major reconstructions of paths, tracks or areas solely for the use by pedestrian or other non-motorized means of transportation when economically feasible and in the public interest

**2. Extreme Low-Temperature Cold Start Programs**

- retrofitting vehicles and fleets with water and oil heaters
- installing electrical outlets and equipment in publicly-owned garages or fleet storage facilities

### **3. Alternative Fuels and Vehicles**

- establishment of publicly-owned fueling facilities and other infrastructure needed to fuel alternative-fuel vehicles, unless privately-owned fueling stations are in place and reasonably accessible
- support the conversion of private fueling facility to support alternative fuels through a public-private partnership
- purchase of publicly-owned non-transit alternative fuel vehicles, including passenger vehicles, refuse trucks, street cleaners, and others
- costs associated with converting fleets to run on alternative fuels
- for private vehicles, the cost difference between alternative fuel vehicles and comparable conventional fuel vehicles
- hybrid vehicles that have lower emission rates than their non-hybrid counterparts
- hybrid passenger vehicles that meet EPA low emission and energy efficiency requirements for certification under the HOV exception provisions of SAFETEA-LU
- projects involving heavier vehicles, including refuse haulers and delivery trucks may be eligible based on a comparison of the emissions projections of these larger candidate vehicles and other comparable models

### **4. Congestion Reduction & Traffic Flow Improvements**

- traditional traffic flow improvements, such as the construction of roundabouts, HOV lanes, left-turn or other managed lanes are eligible provided they demonstrate net emissions benefits
- Intelligent Transportation Systems (ITS) projects such as traffic signal synchronization projects, traffic management projects, and regional multimodal traveler information systems, traffic signal control systems, freeway management systems, electronic toll-collection systems, transit management systems, and incident management programs
- Value/Congestion Pricing projects that generate an emissions reduction, including, but not limited to: tolling infrastructure, such as transponders and other electronic toll or fare payment systems; small roadway modifications to enable tolling; marketing, public outreach efforts to expand and encourage the use of eligible pricing measures; and support services, such as transit in a newly tolled corridor
- innovative pricing approaches supported through the Value Pricing Pilot Program
- operating expenses for traffic flow improvements for a period not to exceed three years if shown to produce air quality benefits, if the expenses are incurred from new or additional services, and if previous funding mechanisms, such as fares or fees for services, are not displaced
- projects or programs that involve the purchase of integrated, interoperable emergency communications equipment

### **5. Transit Improvements**

- new transit facilities (e.g., lines, stations, terminals, transfer facilities) are eligible if they are associated with new or enhanced mass transit service
- rehabilitation of a facility may be eligible if the vast majority of the project involves physical improvements that will increase capacity and results in an increase in transit ridership
- new transit vehicles (bus, rail, or van) to expand fleet or replace existing vehicles
- diesel engine retrofits, such as replacement engines and exhaust after-treatment devices, are eligible if certified or verified by the EPA or CARB
- other transit equipment may be eligible if it represents a major system-wide upgrade that will significantly improve speed or reliability of transit service, such as advanced signal and communications systems
- fuel, whether conventional or alternative fuel, is an eligible expense only as part of a project providing operating assistance for new or expanded transit service, including fuel and fuel additives considered diesel retrofit technologies by EPA or CARB
- operating assistance, including labor, fuel, maintenance, and related expenses, to introduce new transit service or expand existing transit service is eligible for a maximum of 3 years
- regular transit fares may be subsidized as part of a comprehensive area-wide program to prevent exceedances of NAAQS during periods of high pollutant levels; must be combined with a marketing program to inform SOV drivers of other transportation options

### **6. Bicycle and Pedestrian Facilities and Programs**

- construction of bicycle and pedestrian facilities (paths, bike racks, support facilities, etc.) that are not exclusively recreational and reduce vehicle trips
- non-construction outreach projects related to safe bicycle use
- establishment and funding of State bicycle/pedestrian coordinator positions for promoting and facilitating nonmotorized transportation modes through public education, safety programs, etc.

## **7. Travel Demand Management**

- activities explicitly aimed at reducing SOV travel and associated emissions including fringe parking, traveler information services, shuttle services, guaranteed ride home programs, market research and planning in support Transportation Demand Management implementation, carpools, vanpools, traffic calming measures, parking pricing, variable road pricing, telecommuting, and employer-based commuter choice programs
- capital expenses and up to 3 years of operating assistance to administer and manage new or expanded TDM programs
- marketing and outreach efforts to expand use of TDM measures may be funded indefinitely, but only if broken out as distinct line items
- telecommuting activities including planning, preparing technical and feasibility studies, and training

## **8. Public Education and Outreach Activities**

- a wide range of public education and outreach activities, including activities that promote new or existing transportation services, developing messages and advertising materials (including market research, focus groups, and creative), placing messages and materials, evaluating message and material dissemination and public awareness, technical assistance, programs that promote the Tax Code provision related to commute benefits, transit “store” operations, and any other activities that help forward less-polluting transportation options

## **9. Transportation Management Associations**

- TMA start-up costs and up to 3 years of operating assistance

## **10. Carpooling and Vanpooling**

- carpools and vanpools marketing covers existing, expanded, and new activities to increase the use of carpools and vanpools and includes the purchase and use of computerized matching software and outreach to employers and guaranteed ride home programs
- vanpool vehicle capital costs include purchasing or leasing vans that do not directly compete with or impede private sector initiatives; vanpool operating expenses are limited to 3 years and include empty-seat subsidies, maintenance, insurance, administration, and other related expenses

## **11. Freight/Intermodal**

- projects and programs (e.g. new diesel engine technology or retrofits of vehicles or engines, nonroad mobile freight projects) that provide a transportation function and target freight capital costs including rolling stock or ground infrastructure are eligible provided that air quality benefits can be demonstrated

## **12. Diesel Engine Retrofits & Other Advanced Truck Technologies**

- applicable to onroad motor vehicles and nonroad construction equipment, project types in the diesel retrofit area include: diesel engine replacement, full engine rebuilding and reconditioning, the purchase and installation of after-treatment hardware including particulate matter traps and oxidation catalysts, and other technologies, and support for heavy-duty vehicle retirements programs
- purchase and installation of emission control equipment on school buses
- refueling projects (e.g., ultra-low sulfur diesel), but only if required to support the installation of emissions control equipment, repowering, rebuilding, or other retrofits of nonroad engines and only until the standards are effective and the fuel becomes commonly available through the regional supply and logistics chain. Eligible costs are limited to the difference between standard nonroad diesel fuel and ULSD
- outreach activities that provide information exchange and technical assistance to diesel owners and operators on retrofit options
- under a public-private partnership, projects for upgrading long-haul heavy-duty diesel trucks with advanced technologies, such as idle reduction devices, cab and trailer aerodynamic fixtures, and single-wide or other efficient tires are eligible

## **13. Idle Reduction**

- capital costs of off-board projects (e.g., truck stop electrification projects) that reduce emissions and are located within, or in proximity to and primarily benefitting a nonattainment or maintenance area
- capital costs of on-board projects (e.g., auxiliary power units, direct fired heaters, etc.) the heavy-duty vehicle must travel within, or in proximity to and primarily benefitting a nonattainment or maintenance area

## **14. Training**

- funds to support training and educational development for the transportation workforce must be directly related to implementing air quality improvements and be approved in advance by the FHWA Division Office



**15. Inspection/Maintenance (I/M) Programs**

- for publicly or privately owned I/M facilities that constitute new or additional efforts eligible activities include construction of facilities, purchase of equipment, I/M program development, and one-time start-up activities, such as updating quality assurance software or developing a mechanic training curriculum
- operating expenses are eligible for a maximum of three years
- State or local I/M program related administrative costs are eligible in States that rely on privately owned I/M facilities
- privately-owned I/M facilities such as service stations, that own the equipment and conduct emission test-and-repair services, requires a public-private partnership
- establishment of “portable” I/M programs, including remote sensing providing that they are public services, reduce emissions, and meet relevant regulations

**16. Experimental Pilot Projects**

- an “experimental” project or program must be defined as a transportation project and be expected to reduce emissions by decreasing vehicle miles traveled (VMT), fuel consumption, congestion, or by other factors

**Table 2. Ineligible CMAQ Activities and Projects**

- 1. Projects outside of the nonattainment or maintenance area boundaries, except in cases where the project is located in close proximity to the nonattainment or maintenance area and the benefits will be realized primarily within the nonattainment or maintenance area**
- 2. Light-duty vehicle scrappage programs**
- 3. Projects that add new capacity for single-occupancy vehicle (SOV) are ineligible for CMAQ funding unless construction is limited to high occupancy vehicle (HOV) lanes**
- 4. Routine maintenance and rehabilitation projects (e.g., replacement-in-kind of track or other equipment, reconstruction of bridges, stations, and other facilities, and repaving or repairing roads) are ineligible for CMAQ funding as they only maintain existing levels of highway and transit service, and therefore do not reduce emissions**
- 5. Administrative costs of the CMAQ program may not be defrayed with program funds**
- 6. Projects that do not meet the specific eligibility requirements under United States Code titles 23 or 49**
- 7. Stand-alone projects to purchase fuel, except in certain states**
- 8. Routine preventive maintenance for vehicles is not eligible as it only returns the vehicles to baseline conditions**
- 9. Operating assistance for truck stop electrification projects is not an eligible activity since these projects generate their own revenue stream and can therefore recover all operating expenses**